

ABSTRACT

A magnetic optical element having a Faraday rotator and a polarizer provided integrally on the light transmitting surface of the Faraday rotator; the magnetic optical element being characterized by being constituted of i) a Faraday rotator on each side of which an anti-reflection film has been formed and ii) a polarizer comprising photonic crystals which has been formed on one anti-reflection film. Then, in this magnetic optical element, insofar as no substrate for the polarizer is present, the whole magnetic optical element integrally made up of the Faraday rotator and the photonic-crystal polarizer can be made small in thickness, and hence, when cut into small chips, the chips can not easily scatter, also having the effect of enabling production of inexpensive optical isolators.